1:Lipkind E-5 (1937) 1948 SP9 Caraja SP9

is planted in September, when the first rains come, and manioc shortly after. There is little cultivation beyond weeding. The basic crop is manioc, both the sweet and bitter varieties being cultivated, with maize next in importance. Four varieties each of sweet and bitter manioc and 10 varieties of maize are cultivated. Other crops are: Five varieties of potatoes, two varieties of cara, four varieties of watermelon, three varieties of squash, four varieties of beans, and ten varieties of bananas, as well as peanuts, urucú, tobacco, cotton, calabashes, sugarcane, yams, peppers, pineapples, and papayas. Men do all the work with a little assistance in harvesting and weeding from older women. The *Javahé* are more industrious farmers than the other *Carajá*, cultivating extensive plantations. 241 [462] [184]

Collecting.—A large number of vegetable products are gathered for use as food, medicine, and raw material for manufacture, but only a few are of great importance. The babassu and the buriti palms, used for food and textile materials, are among the most valuable. The taquara reed is sought after for arrows. Turtle eggs are a significant item of food during the dry season. Honey is indispensable for feasting. 222 262 [411]

Hunting.—Although the *Carajá* are passionate hunters, very few of the animals available in the region are eaten. Only the peccary is really sought and constitutes a sizable item in the larder. The other animals that are eaten—the cutia, coati, woodsdeer, monkey, iguana, and a few birds, such as the mutum, jao, and jacu—are killed when encountered but are not eaten by everyone. Peccaries are hunted in a communal drive, the most favorable time being shortly after the beginning of the rainy season when large droves are trapped on islands. 224 [262]

The chief purpose of hunting is to get feathers, and the most desirable birds are the various parrots, herons, the male stork, and the flamingo. The nesting of valuable birds is carefully watched, and the young are stolen and tamed. Feathers stored in small baskets almost constitute a currency, because they are readily negotiable at all times and maintain a stable value. 223 237 [251] [436]

The principal weapons are the bow and club. The bow, made of a variety of woods but with a preference for juari when available, is round in cross section and about 6 feet (2 m.) long. The arrow is preferably of taquara reed and variously tipped with wood, animal bone, or fish bone. Clubs are beautifully fashioned of heavy hardwood, decorated with delicate carving, and are swung and thrown with equal skill. The lance is now used only for ceremonial purposes. 441

Fishing.—Fish is the most important food supply. Trapping and drugging fish with timbo is a communal affair; individuals fish with the bow and arrow. There is occasional night fishing, with spearing by torchlight. The pirarucu is killed by harpoon. The hook and line is little used, and apparently was borrowed recently from the Neo-Brazilians. 226 [262] [77]

Food preparation.—Manioc is peeled, grated, squeezed out by hand, and cooked into a soup. When the soup cools, it is masticated for a few 252

1:Lipkind E-5 (1937) 1948 SP9 Caraja SP9

minutes, then allowed to stand for a while. The resulting fermentation is not allowed to continue long enough to produce an intoxicating drink. This soup, along with a similar soup made of maize, is a daily staple. Manioc and ground maize are also made into cakes, but this is a holiday variation of diet rather than the staff of life as in other regions. The standard methods of cooking meat, fish, and vegetables are boiling, roasting on a spit, roasting on a grate, and roasting in the embers. Occasionally, some vegetables are baked in hot sand. Maize is the only food that is stored. On platform shelves at the top of their rainy-season houses, the *Iowahé* pile a supply of maize dried on the cob sufficient to last throughout the dry season.

HOUSES AND VILLAGES

The permanent or rainy-season village is erected on a high bank overlooking the river. One or two rows of houses face the river, and the men's house, about 50 feet (15.2 m.) back, faces down river. All the space between the men's house and the family houses is kept perfectly clean and constitutes the dancing plaza of the village. The surrounding clearing extends only a few yards in all directions. All neighboring forest which must be traversed in hunting or gathering is threaded by well-marked trails. A path leads down from the center of the village to the main port where women, married men, and children bathe, and married men land their canoes. Another path cuts diagonally down from the men's house to the bachelor's port where the young men bathe and visitors to the masked dances land their canoes.

The house is rectangular in ground plan with supported horizontal ridge poles (fig. 18). Saplings are sunk into the ground at the sides and

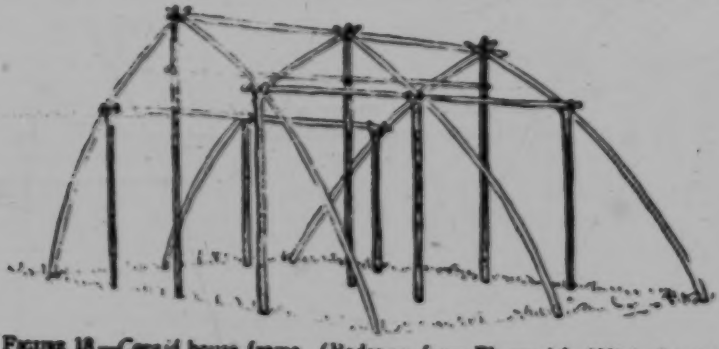


FIGURE 18.—*Carajá* house frame. (Redrawn from Ehrenreich, 1891 b, fig. 3.)

bent over to the ridge pole at the top, where they are firmly tied with bast. Then the whole structure is tightly thatched with successive overlapping layers of palm frond tied to the saplings (pl. 20, *top*). The entrance is a small rectangular opening at the bottom, through which one crawls after

/13 cont./

231 825 Domestic animals. In a description of the Indian house its animal fellow-lodgers must not be passed over. A genuine Indian still-life is inconceivable without them. The naïve joy of primitive man in animals and their behavior is expressed in his care for them. He considers the animal as [181] [538] his equal. The feeling of solidarity, indeed, of relationship with the animal world, which expresses itself in tribal tales and a rich treasury of animal fables, is a principal characteristic trait of the Indian national-spirit. This at the same time explains the often stressed contradiction that the savage Indian, in spite of his astonishing ability to tame the wild, timid animals of his country, has never brought this to the actual breeding of domestic animals in our sense. The animals are captured young and reared, but only to please themselves, for entertainment, out of joy in associating with them, not in order to make them useful. Therefore they 235 are not mated. Even the domestic chicken, which the 171 Araguaia tribes have had for a long time in a domesticated [262] state and which multiplies in great numbers, is not, as a member of the household, /14/ used for food, nor are its [439] eggs (1). In recent times, however, it serves as a trade item [13]

1. Im Thurn, Among the Indians of Guyana /Guiana/, p. 265, reports the same thing.

in the trade with the commercial travelers, who sell the poultry in the first settlements of the province of Pará at a great profit.

231 Of the imported domestic animals, dogs and cats are already widespread. On the other hand, the pig is absent, but, in contrast, it is raised and traded by preference by the Kayapo tribes.

235 825 A large Šambioa village is always at the same time a kind of menagerie. The bird kingdom is most noticeable. The largest and most colorful birds are made use of, at least insofar as they must give up their feathers for feather ornaments.

/14 cont./

Way of Life. Food and Its Preparation

433 Like most South American tribes, the Karaya are first of all fishermen, but, in addition, carry on a not insignificant agriculture.
326 [221] The principal season for fishing is the dry months from May to October, when the larger fish strive toward the deeper parts of the river, the so-called poços, which are formed in particular above the small rapids and the masses of rock projecting out here and there.

The fish kingdom of the Araguaia, in all of the middle course, already bears throughout the character of the fauna of Amazonas. The giant three-meter long pirarucú/arapaima/ (Sudis gigas) is common everywhere, as is the electric eel (Gymnotus electricus) and the thick-bodied pirarara (Phractocephalus discolor) armored with its strong shield of bone. The poços abound with cannibalistic piranhas; in the shallow places along the bank the no less feared thornback, buried in the sand, lies in wait for its prey.

[242] Prized as the tastiest fish are the blue-grey spotted pintado (Pimelodus sorubim), reaching up to two meters in length, the matrincham /Caracinidae/, the tucunaré (Cichla temensis), the trahira (Macrodon), and various species of the pacu (Myletes). Certain fish, particularly scaleless ones, are not pursued because of superstitious fear, and likewise the fresh-water dolphins,
[225] present everywhere in great numbers. Tortoises and their delicious eggs, however, are hunted all the more zealously.

At high water, when the fish are no longer easy to get in the clay-yellow flood, the many lagoons along the river provide the most productive fishing places. They form large natural traps for the larger species, in which they can easily be isolated.
[439] /15/ Whereas formerly the fish were killed almost exclusively with an arrow, angling is now used more and more, since hooks are imported in large quantities. In many places, however, angling and net fishing cannot be done because of the countless piranhas whose teeth cannot be withstood by any line or net.

/15 cont./

226 Smaller fish are caught in weir baskets (adžuriă), larger ones in stockades or peculiar traps made out of vines (deaurărŏ) which do not know from personal observation.

433 Hunting, in contrast to fishing, plays a much lesser role than those who view all Indians as purely hunting peoples without 224 further ado are inclined to believe. Larger, huntable game is 262 quite sparingly represented in tropical South America and, in view of the lack of firearms, difficult to obtain. In addition, superstition often forbids eating the meat of precisely the largest and most common species. Thus, the Karaya scorn the tapir. Their principal booty is the monkeys common in all the forest along the shore, wild pigs, small rodents such as agoutis and pacas, and furthermore the small camprehe. In the lagoons and marshes of the patanaes the musk duck (Anas moschas) present in large numbers provides excellent food for them.

241 Agriculture. The great distance of the plantings from the villages prevented a visit to them. Judging by the wealth of [262] vegetable foods among the Šambioa, their agriculture seems to be on a relatively high level. The "savages" have in this respect outdone their civilized neighbors by far. In general, [177] iron agricultural implements have already supplanted the original ones.

The most important cultivated plant is manioc, of which both the more nourishing poisonous species (M. brava) and the less productive, but immediately edible aipim (M. mansa) are grown. The freshly cleared, dry forest soil of the higher banks is especially suitable for this kind of cultivation.

[273] Next, maize comes into consideration as a grain product, which is used less in substance than for the production of fermented beverages.

Sugar cane flourishes on the lower shore-land. During the dry season one sees the seedlings planted on the sandbanks [249] everywhere for the next season. Special devices for pressing out the juice are not in use.

Of the legumes there is found among the Šambioa small brown beans (Dolichos chinensis), as well as peas (komonara) imported from Pará.

/15 cont./

241 Cara tubers /Dioscorea/ are grown in large quantity, excellent quality, and in various species. Most commonly one sees the huge egg-shaped pé d'anta (Cara brasiliensis) with a white cut-surface, as well as a smaller one with an almost violet cut-surface.

228 [242] The wild food plants and fruits which the river forests and camp-woods supply constitute a desirable change. These are primarily palm fruits, such as the nuts of the uaguassú, the pineapple-like fruits of the buriti (Mauritia vinifera), and various small species of coconut; furthermore, the wild acaju tree, the jaboticaba, the pitanga /Surinam cherry/ the oily piquia (Caryocar brasiliense), various Bromeliaceae, and, finally, the finest fruit of the campos, the mangaba (Hancornia speciosa). One sees the latter, however, much more rarely than in the Xingu villages. The tree does not seem to be planted as it is there.

[262] It is noteworthy that the orange, which flourishes extremely well here, is not cultivated, although the Indians esteem it most [439] highly. Only rarely do they undertake week-long journeys to the Brazilian settlements to trade for these fruits. A principal goal of such excursions is the site of the old, now abandoned mission and military post Chambioas, just above the rapids of S. Miguel, where rather large stands of this noble tree have maintained themselves. Cacao, too, was formerly obtained from there.

Still to be mentioned is the honey of the countless species of wild bees, the collecting of which presents no difficulties since the animals are entirely stingless. The black wax, which [337] is stored in large, round, inch-thick disks, is used in Indian industry as a glue.

249 The only luxury item of the Karaya is tobacco (koti). It is a Nicotiniana, but not N. tabacum, of a mild quality. The dried leaves are stored (see p. 40) in large rectangular packages plaited out of palm-leaf strips and are pulverized between the 176 hands for use. /16/ The fruit capsule of the jequitiba tree 824 (Hymenaea sp.), filed smooth on the outside, serves as a pipe

/182 cont./

142 [962] Very distended abdomens, probably a result of the predominantly vegetable diet, are not a rarity, especially among the male sex; almost throughout the children of both sexes have a drumlike distended abdomen (Pl. 11, Ill. 4; Pl. 12, Ill. 2; Pl. 43, Ill. 2; Pl. 51, Ill. 2). The musculature of the abdomen among the men is usually so well developed that its individual parts are visible under the skin (Pl. 36; 38, Ill. 1). The pelvis is narrow; girls and maidens in particular have pelves that are no broader than those of the male sex, and even those of the women are not essentially broader than those of the men. The strikingly broad pelvis of one woman observed by me is an exception, contrary to Ehrenreich, who describes them as figures tending toward broadness (1). Hand in hand with this slight development in the breadth of the pelvis goes the almost total absence of a waist (Pl. 16; 17; 42, Ill. 1), which is occasionally clearly present only among women /183/ (Pl. 42, Ill. 3). Peculiar to the male sex is the often strongly prominent inguinal line (Pl. 36; 44, Ill. 1).

1. Page 119. On page 101, however, he describes the hips of the women as relatively narrow.

The paddings of fat over the glutei are generally normal. Where they are more strongly developed (Pl. 16), the accumulation of fat appears more in the lower parts. A well-developed padding of fat is part of the Indians' ideal of beauty. [826] [832]

The Arms. As far as the length of the upper and lower arms is concerned, the upper arm seems to be proportioned like ours; the lower arm, on the other hand, seems long in relation to the upper arm (Pl. 43, Ill. 1), and the female sex has proportionately longer lower arms than the male (Pl. 17). The musculature of the upper arm is extraordinarily well developed among the men (Pl. 15, Ill. 1; 36; 43, Ill. 3); among young men and boys, as well as among the female sex, on the other hand, it is only slightly developed, so that one is obliged to call

/241 cont./
136 yields. The country is also relatively poor in useful animals, and
[224] almost all of the few animal species that can be hunted are not
[242] eaten by the Indians, with the exception, to be sure, of the wild
[223] pig. The birds are very numerous; with the exception of the mutum, however, the Indians do not seem to hunt any other bird. Thus, the water must supply the principal food. The river is extremely rich in fish and turtles; everywhere, in shallow places, in the depths, in lakes, but above all in the tributaries, one comes
[226] across a quite startling abundance of fish. But even this abundance
[242] is not fully exploited, since a few types of fish are not eaten.

A. The Acquisition of Plant Food.

462 The women essentially are responsible for the gathering of wild plants and fruits, while the men engage above all in pro-
222 curing animal food (1). The following come under consideration:

> 1. This division of labor is ancient. In the myth, "How the Karajá acquired manioc," it is said of the father that he would not notice the theft of maize because he only knows fishing (see there /see pp. 302-303/).

the small oitŭ fruits, which are gathered in the forest during the first half of October; the pikí fruits (lămă), which ripen during the second half of October; the watermelon (kūblākĕ), which grows on the sandbanks at the place where the banks are connected with the shore. The Indians know exactly those sandbanks on which the melons grow and gather them as early as the end of October when
222 the fruit is not yet quite ripe. Of palm fruits the following are
262 eaten: the seeds of the tucum palm (hālŭ), of the so-called coceiro (āhăndĕtĕ), and of the oaguassu palm (haūlēnĭ), the roasted seeds of which are called haūlēnĭdŏ. The fruits of the jatobá tree (kūwă) and of the genipap (bădēnă) are likewise eaten. Another fruit, from which a black dish is prepared, was called ādomo; it is

/241 cont./

222 gathered at the beginning of October. Of other fruits Ehrenreich
262 mentions: caju /acajou/, jabuticaba, pitangu, and Bromeliaceae, and Königswald also the mangaba. I never saw these fruits in the villages, however. As vegetable plants there are eaten: mormão (dãdẽdãlĩ), which is gathered the end of October; on the other hand, the mandioca do matto (ãzõ) is supposedly not eaten, because it is too poisonous.

241 The following food plants are cultivated: the poisonous
262 (ãndjĭũlã) and the sweet (ĩ(ĭ)lũ) manioc; four varieties of maize, mãĩ, dõlĩmẽ with large, round kernels, ĭzẽlãlã with round kernels, mãĩdũzõ with red kernels; batatas (kõdẽrũtĩ), and cara (kãrã). Of fruits, bananas are probably cultivated. The green banana is called jãdaũãbõ, the ripe one jãdàzõ. I obtained bananas in Indian villages only twice, and, indeed, at the beginning of July; I never saw any in the plantings. Perhaps bananas occur only here and there, for example, according /242/ to the statements of Brazilians, among the Šavajé on Bananal Island, which is supposed to have been named after them. I did not see oranges (nãlãdjã) anywhere. Of other fruits Königswald also lists: gourds, water-
[824] melon, pineapple, and sugar cane (mã(ĩ)ĭtĩ). The gourd is not eaten, but used only for the making of vessels; the watermelon is generally gathered in the wild state, probably only rarely cultivated; only once in a village of the south horde, did I meet a family who stored seeds of these plants in small bast packets. Pineapple is surely not cultivated, and I did not see sugar cane either. If they had had any, they would probably not have begged
[114] me for sugar to the extent that they did. The statement of Ehrenreich that during the dry season sugar-cane shoots are planted on the sandbanks should be corrected to read manioc and maize stalks.

241 Of spice plants, peppers (kãšĭwẽrã), of plants for enjoyment, tobacco (kõtĩ), are cultivated.

Moreover, one finds in the plantings: as industrial plants, cotton and gourds; as plants used in ornamentation, ĭšĭũlã shrubs (for necklaces) and the urucú shrub; and a quantity of medicinal plants.

/244 cont./

527 Regular harvest festivals probably do not take place; the time of the ripening of the food plants, that is to say, the time when they have a great deal to eat, is their chief festival time, however.

B. The Acquisition of Animal Food.

433 The acquisition of animal food is as yet limited to the appropriative form; the Indians have not arrived at animal breeding.

231 825 [262] To be sure, they keep a great many animals in their houses, but do not use them for food, nor do they mate them, but rather, after loss, they catch young specimens again to tame these anew. This pleasure in animals arises from the belief that animals are related to man, are the same in essence; they believe that animals speak and act like human beings, only in a different form. And so they surround themselves with them, in [235] order to divert themselves by their behavior. Only birds are kept for practical purposes, namely, as suppliers of feathers; they are repreatedly robbed of their feathers, which are then made into ornaments. Tamed quadrupeds, as well as chickens, usually run around free; birds have their wings clipped or they are tied to a pole on the roof, in the house, or under a special protective [438] roof (Plate 54, Ill. 1). Apparently there is a trade in birds, for several times I observed wandering Indians who carried little birds with them in small gourds, in order to sell them in other places. /Plate 53 appears here./

231 [136] [262] /245/ Of such domestic animals, I observed the following: Of foreign, imported animals there were: chickens [(h)ănĭ(k)ĕ], pigs [(ĭ)šā(nĕ)], dogs (kjŏlŏză), cats [(găh)ănlōĕnĕ]. These animals are not eaten; the Indians are not even acquainted with the eating of chicken eggs (hănĭkĕsi). Pigs are very rare; I saw only one large domestic pig, which was quite obviously kept only out of curiosity.

[TEXT CONTINUES ON P. 155]

/245 cont./

231 Of native animals, monkeys [kǎ̄lōbǐ(dēnǔ), klā̆ōbǔ] were only very rarely encountered. I did not see any examples of the animals mentioned by Ehrenreich, capybara, agouti, peccary, 231 tapir, etc., in the village of the Karajá. The bird world is 235 more abundantly represented. Of the araras the red arara (Macrocercus militaris) is preferred, whereas the hyancinth-blue arara (ā̆ndā̆dōlā̆: M. hyacinthinus) and the blue-yellow one (bīzā̆: M. macao) were seen only rarely. Usually they stayed on the roofs of the houses. Small green parrots (bōlōbědō̆ - parakeets; dōlā̆) were more frequently encountered, mostly as the property of young girls who carried them around sitting on their heads and let them drink from their hands out of small mussel shells. The caracara [ǐ(h)ī(ŏ)lē̆, īlā̆], a predatory bird, was seen only occasionally. Its feathers were apparently little used. It is probably kept in the houses because it plays a certain role in the legends. Very sporadically I saw a young ostrich [kŭsā̆(hā̆)wē̆, nāūĕkǐē̆], a small water bird, and a young, tame mutum (kŭlǐtǐ), around whose legs had been crocheted small red calf-bands. I did not see the other birds mentioned by Ehrenreich, white heron, roseate spoonbill, and jabiru, tamed among the Karajá. Nor did I observe or learn that small feather tassels are tied into the wings of birds, or that their feathers were artificially changed in color.

231 Of reptiles and other animals I came across small turtles, which were kept by girls in small gourd shells filled with water, lizards (so-called chameleons: kū(ū)lā̆), which, generally with white down feathers glued on, were carried by the women on the head or shoulders, and, finally, young crocodiles [kā̆b(ŏ)lōlc̆] about 20 centimeters long, which lay in the shallow puddles on the edge of the sandbanks, tied to the string of a stick planted vertically into the sand; little children would come running, take out the stick, and let the animals walk and swim on the tautly stretched string.

262 These animals kept in the village are never eaten; in order 222 to obtain their meat food, the Indians are much more dependent [225] on gathering and hunting. They gather turtles and turtle eggs, ostrich eggs, and honey.

Of turtles, the tracajá (kōdŭ) and its eggs (kōdŭzǐ) are for the most part scorned; only older people eat them. The laying time is August to early September; the nest contains about 16 eggs.

/245 cont./

262 The eggs are longish and have an odor and taste somewhat re-
222 sembling train oil. The tartaruga (kŏdūnĭ) and its eggs (kŏdūnĭzĭ),
[221] on the other hand, are eaten with great relish. /246/ For them, the Indians undertake distant boat journeys up the tributaries of the Araguaya in September to October, the laying period of this turtle, which deposits up to 160 round eggs in a nest. All the sandbanks are investigated and the often numerous nests emptied (on the Tapirapé I found up to four nests on small sandbanks). Thus, they gather quite enormous quantities of eggs. These are
[251] either eaten raw or they are cooked and dried in the ashes and
[439] then kept for a long time, so that the Indians take them home,
[437] eat them later at leisure, or are able to sell them in the Brazilian towns (Santa Maria, Conceição) on trading expeditions, which
[225] they undertake in September and October. The turtles themselves are taken by surprise while laying, or in shallow water they are caught with the hands by diving from boats or with iron bottom-tackle. The turtles are brought home alive in great
231 quantities from these expeditions and then eaten or sold. In order to be able to keep them for a longer time, cages are built out of twigs bent together at the top, which are stuck in the sand in a circle, providing shade for them. Here they are tethered and kept until they are consumed (Ill. 6). Small turtles are raised in the villages as a pastime.

262 Ostrich eggs (nâŭĕkĭĕzĭ) are eaten with great relish. The
222 Indians empty the entire nest and take the eggs home with them in order to eat them cooked there.

222 Honey (bădĕrhõ) is a delicacy of which they are passionately fond. On their boat trips they observe the direction of flight of the wild bee (bēdĭ), designated by them as stingless, until, after a short time, they have discovered their nests high up in the crowns of trees. Quickly the tree is climbed and the nest cut down
[415] with the bush knife or ax. The honey is then taken out down below; it is stored in bent pieces of bark or in gourd vessels. Bees nesting in hollow trees are smoked out and the honey is taken out with the hand. The often giant honeycombs are individually sucked out;

/246 cont./

222 [237] [432] the wax (tăbōlă)[1] is stored in large lumps; it constitutes one of their most important gluing and packing mediums and as such is everywhere offered in quantities by the women to passing boats. The chief gathering period of the honey seems to commence in October.

224 [221] While the gathering of these foods is bound to specific seasons and requires journeys often weeks long, in order to collect large amounts, the daily animal food is obtained in short expeditions from the villages by means of all kinds of traps.

[433] [226] It should be noted that the hunting of birds and land animals is completely overshadowed by fishing. In general, of course, the land is poor in animals as compared to the water. There is only a little big game to be hunted: red deer (bŏlōlă), roe, tapirs [(k)ōlĭ], monkeys (1), wild pigs (ĭsă), and possibly

[237] [242] 1. Howling monkeys are shot only for the bones, which are used for arrow points, lip plugs, and arrows, but not for food.

also /247/ jaguars (ănlōă); smaller animals are more frequent, but very shy and difficult to hunt (agouti, tsŭsŏ; capybara, hūă, etc.).
223 The choice of birds is likewise not very large. Above all, gallinaceous birds (jacu, bĕdjūă; mutum, etc.) and pigeons, as well as ducks (hăăkŏlĭnĭ, hĕdaûlĕ, dĕăĭăĭă) and divers, come into
262 consideration. I was unable to find out whether they eat ostriches, or how they feel about lizards, crocodiles, and boa constrictors, which Königswald reports are eaten. The small choice of game animals is even more restricted by all kinds of so-called food prohibitions. Thus, this person will not eat this animal, and that person that one. Some animals are generally not eaten, though
224 they could furnish a great deal of meat. Hunting only plays a secondary role in the economy of these Indians.

For wild game they set out individually or in company; wild pigs in particular are always hunted in company. It is
[222] strange that the chief never goes along on the hunt, though he does engage in fishing. Only large animals are hunted; the young ones are allowed to run away.

1 [i.e., bee's wax --Analyst]

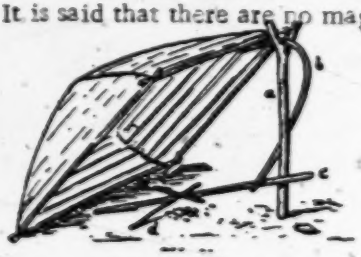
/248 cont./

223 until the uppermost one, finally, closed the opening of the little pyramid. Strings ran down along the edges, were fastened to the lowest rods, and crossed at the top on the surface; they barely held the whole construction together. The type of release is clearly shown in the sketch, Ill. 84.

[198] To lure birds and game the Indians use specific calls which differ according to the particular species of animal, as they know how to imitate animal sounds masterfully.

Birds must be plucked on the spot; they may not be brought to the village unplucked ("otherwise the chief will be angry"). While plucking, the fingertips are dipped in wood ashes.

223 224 [538] It is said that there are no magic devices for making the hunt productive; on the other hand, the Indians are fond of telling one another hunting stories, and, in doing so, they like to exaggerate and tell improbable things.



Ill. 84.
Construction of the bird trap.

226 562 Fishing supplies by far the largest portion of the meat food; the subsistence of the Indians is to a large extent based on it.

136 The Araguaya is extremely rich in fish (kǎdõlǎ); still richer, however, are the tributaries, especially the Rio Tapirapé and the many lakes that accompany these rivers on either side.

In the deep water of the lakes and on the high, steep banks, especially where fallen trees lie in the water, live the pirarucú (b'dõlěkě; Sudis gigas), three to four meters long; and the pirarara (dõlě; Phractocephalus discolor), which is equipped with strong bone armor and is up to two meters long. Upon being [533] [825] pulled out of the water, it emits air with strange sounds; the humorous Indian likes to imitate these sounds in his songs. Furthermore, the dogfish (lãdǎ), with its powerful teeth, lives here, and above all the worst predatory fish, the piranha. Various

/248 cont./

136 kinds are distinguished: the small yellowish one with a black circle on its cheeks, the whitish-red one (dŭĕtă, kjŭĕtă), and the huge black, red-eyed piranha (dŭŭlĭ), the largest specimens of which reach a length of 48 centimeters. The piranhas are vicious predators. When they scent wounded animals or fish, they hasten to them in droves and in a few minutes reduce a whole animal to a skeleton. They leap high out of the water in their greed, so that at such places huge eddies of water and fish are produced and gradually collapse again. It even happens that they injure
226 and devour each other. They live in vast numbers and huge specimens in the Tapirapé especially, and even the Karajá were /Plates 54 and 55 appear here/ /249/ astonished when a dogfish, hit in the head by a vertical shot from the boat, was pulled up after a few minutes as a mere skeleton on the arrow. The meat of the piranha is very tasty; but since the animals seldom come to the surface and can be caught only with the fishhook, they play only a minor role in the economy of the Indians. The latter, however, prize them and, whenever they can, seek to obtain possession of strong fishhooks that can withstand the strong teeth of the animal, and similarly tin to surround the part of the fishline around the hook like a mantle and thus protect it from being bitten through. In spite of this, a number of hooks thus equipped are regularly lost.

The pintado (Pimelodus sorulum), which is up to two meters long and has good yellowish meat, lives in shallow water, where the Indian can hunt better with bow and arrow, I saw matrincham, tokunaré, pacú (ălĭwă) caught relatively rarely. The carí fish lives in the caves of the steep banks and may be pulled out by the tail; it is an extremely tasty fish, which, however, has only a little meat in its armor.

136
262 Many fish, especially scaleless ones, such as aruana (ĭdjăzŏ) and others, are not eaten. Similarly the giant dolphin (boto: bŭhă) is not utilized; its droll movements and its puffing merely afford the Indian occasion for mirth and humorous imitation.

[Text continues on P. 163]

226 /251/ or die, come to the surface as a result, and can then be conveniently gathered in. The fence prevents the fish from escaping
[262] into the river. Eating this fish is not harmful to human beings; even drinking the water merely causes a stomach-ache. The
[177] Karajá maintain that they learned this type of fishing, which is carried on especially during the rainy season when the water is muddy, from the Chavánte (see also, however, the fish fence of the Tapirapé /see p. 342 /).

I did not see or hear anything about weirs for small fish (adžuriã), on which Ehrenreich reports, nor of other fishing apparatus.

C. Storage and Preparation of Food.

251 The yield from the plantings as well as from hunting and fishing expeditions is usually consumed at once. The hot climate prohibits the laying away of larger supplies; above all, the preservation of meat is completely out of the question because of the lack of salt. In fact, the Indian is forced to go fishing again in the afternoon, since the fish caught in the morning would already be spoiled by suppertime. It is impossible to keep fresh meat for more than a quarter of a day, and even roasted meat is inedible the next day.

[261] Thus, the Indians have to work hard and be constantly concerned about food, especially in the dry season, when the yield from the plantings is always small. To some extent they help themselves with turtles, which, as mentioned above, they keep alive; turtle eggs, cooked and dried, keep for a very long time. But the Indians do not store even plant produce in large quantities; they have supplies for only two or three days in the manioc lying on their supply racks or in the maize kernels in large gourds with a side opening. They also store water in whole gourds.

252 All foods are eaten cooked; only fruits, as well as turtle eggs, are eaten raw; everything else is boiled or roasted.

/253 cont./

on the Savajé journey. Apparently they are used more by the men for the grilling of fish, but the men also understand boiling. 252

Roasting is done on the roasting hearths or on the spit. Meat and fish are roasted until the outer layer is charred. This strong burning makes up for the lack of salt to a certain extent. In the same way, palm nuts and other fruits are roasted in the fire, then later cracked open and eaten. In flat bowls (?) the fruit seeds of the coceiro (hõlẽnĭ) are roasted from October on. These seeds are then pounded, mixed

Ill. 90.
Double-bellied cooking pot.

Ill. 91.
Three-legged cooking pot.

[415]

with the meat of the nut, and this is then roasted together.

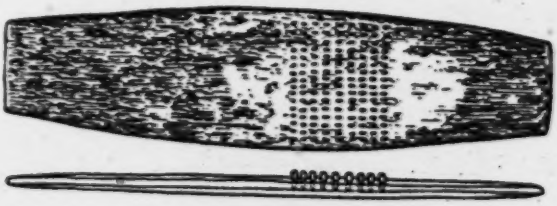
Boiling in large cooking pots preponderates by far, however. The cooking pots (wădjĭwĭ, wădšĭwĭ) are made of gray clay; their typical shape is reproduced in Ill. 89. They are generally undecorated. Their diameter is often tremendous, measuring up to 80 centimeters; the height, however, is generally uniform (11-14 centimeters), so that such huge pots appear more bowl-shaped. Sometimes they are covered with clay plates. Vessels of a special type are the double-bellied vessel (Ill. 90), as well as the three-legged cooking pot (Ill. 91); both were likewise called wădjĭwĭ. [323]

Fish, for one thing, are boiled; they are cleaned, scaled, cut into pieces, and thus boiled. When pikĭ fruits are in season, they are boiled with these. The chameleon is likewise skinned and boiled. Above all, manioc is prepared in this way. It constitutes the chief food. The preparation of the poisonous manioc is done as [262].

/253 cont./

252 follows: The root, provided with incisions, /254/ is placed in [412] water for several days, then scraped with a sharpened mussel shell, [237] and after that grated on the wooden grater [(k)ʊ̆lãnã̆]. The longish, rectangular, flat piece of wood bears in the center of one side several transverse rows of inset points of prejauva wood

[412]



Ill. 92.
Manioc grater.

[516] (Ill. 92). The woman kneels while grating and holds the piece of wood against her body and braced against the ground. The well-known palates of the pirarucú [237] fish also serve as graters. After that the mass is mixed [415] with water and placed on the rod-sieve [bʊ̆lɛ̃ĭdjʊ́, pronounced brɛ̃(ĭ)djɛ̃́]. This consists of thin little cane rods arranged side by side, which at rather wide intervals are interwoven with two strings, in the same way as the net coverings (Plate 55, Ill. 1). Such rod-

[412]

Ill. 93.
Stirring spoon.

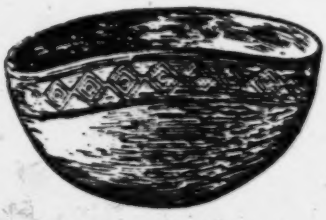
sieves serve, for one thing, as sieves for pounded manioc and for potter's clay, and then, too, as a manioc press, and finally as a base in pottery-making. On such sieves, therefore, the mass of manioc is cleaned, large pieces are picked out, and the sieve, along with the mass, is then rolled up and at the same time pressed hard with the hands, so that the poisonous juice flows out. [262] The resulting coarse flour (kɛ̃nõdɛ̃́) is cooked to a manioc mush, the common food of the Indians. The sweet manioc (aipim) is [412] treated somewhat differently. It is cut up and crumbled and then [412] pounded with the thick wooden pestle approximately one and a half meters long (hãṍ) in the mortar about 50 centimeters high and 26

/256 cont./

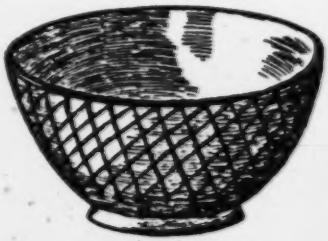
412 shows a pointed cone-shaped striking stone with hollowed-out striking place and with flat base; Ills. 100-102 show three stone axes, namely, a long flat-ax, a short flat-ax, and an ax with a shaft groove running around it, whose blade is already heavily worn as a result of the pounding.

415 [531] 1999

Ill. 94.

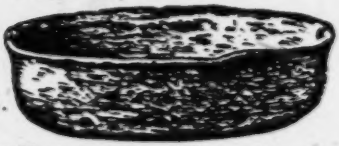


Gourd vessel for eating.

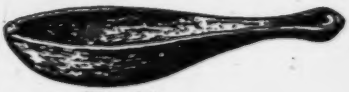


Ill. 96.
Modern eating dish.

Ill. 95.



412 Shallow eating dish made of clay.



Ill. 97.
Gourd spoon.

Ill. 98.
Gourd spoon.

Ill. 99 a-c.
a) Striking stone, b) its striking surface, c) base.

264 There are two meals, breakfast (andoldoho) at about eight or nine /257/ o'clock, and supper (lirosik) at about five or six o'clock. In between, [262] however, this and that is munched, fruits, nuts, etc., at noon they like to eat grilled piranhas (fish jacuba: djudea). The menu consists mostly of boiled manioc mush and fish. Much is eaten, but the people do not

/257 cont./ Much is eaten, but The People do not become fat. While eating, they squat around the pot and spoon out their mush. I could not see that they ate turned away from one another, as Ehrenreich and Königswald state, but the women are usually ashamed to eat in the presence of strangers; and the Indians whom I had with me as companions did not eat my cooking when they came to a strange village

Ill. 100.
Flat ax.

Ill. 101.
Short flat-ax.

Ill. 102.
Stone ax with shaft groove.

with me, but went hungry the whole time, if in the village they did not have relatives who gave them something to eat. And they did not work during the stay in the village. They were ashamed, as they expressed it.

E. Beverages.

In drinking, the Indian is, understandably, very moderate; water serves as the ordinary beverage. Yet they also know how to prepare other drinks, which, however, are usually not intoxicating.

Buriti fruits (ãdehõ) are pounded and mixed with water; the liquid is allowed to settle, the clear liquid is ladled into a tall pot, boiled, allowed to cool, and then drunk. The liquid is said to be dark red and very sweet, but not intoxicating. On festive days large quantities of it are said to be consumed.

Pikí fruits are boiled, crushed, and, stirred with water, put into a pot. The liquid is left standing overnight and is drunk cold the next morning. The pits are dried and eaten later.

/257 cont./

273 From maize they allegedly make a drink kănūắ, with the preparation of which, however, I am unfamiliar.

The most common festive drink, which is drunk on all visits and other /258/ occasions, is made out of manioc mush (ĭūărŭk). The way of making it is described by Ehrenreich ("Beiträge," pp. 16-17). The slight fermentation is brought about by chewing the residuum of the cooled mush. The Indians, men and women, scoop out the drink in huge quantities. It is slightly intoxicating; the people quickly get puffy faces, watery eyes, and are inclined to chatter. It tastes like unseasoned diced-potato soup.

[199] Sugar-cane liquor (cachaça: ĭbūălĕ́) is already penetrating here, too, through the Brazilians. There is only one village, however, Schischá, in which liquor is drunk by all, presumably because liquor is made in the vicinity and the drink is therefore very cheap. Otherwise I found very few Indians who accepted liquor (for example, Chief Ilk); women never drank any, except in Schischá. Usually it was also refused by the men and young people.

F. Food Prohibitions.

262 It has already been mentioned above that the potentialities for food are not fully utilized, that some foodstuffs are scorned. [114] The reason for this is difficult to find. I already thought that I was on the trail of a totemistic system, but I did not succeed in proving it. Apparently, along with superstitious notions, personal taste also plays a role in this.

The following are quite generally not eaten: the meat of domestic animals, eggs, howling monkeys, capybaras, dolphins, crayfish, and mussels. The tracajá turtle and its eggs are eaten only by old people; young people scorn them, because eating them is said to have a bad effect. Allegedly chiefs are said not to eat red-deer meat. Grilled piranha is regarded as the sole food for sick persons; pregnant women, too, are forbidden many foods. Individual persons did not eat certain things: thus, Pedro

/258 cont./

262 scorned red-deer meat and tracajá eggs; others ate these things.
[177] Enlightened (civilized) Indians, who otherwise still believed firmly in all kinds of magic, ate everything.

G. Luxuries.

276 The Indians are familiar with only one luxury item:
[177] tobacco (kõtĭ). They maintain that they adopted the luxury of tobacco only from the Brazilians, and, to be sure, in about the
[249] first half of the nineteenth century. At that time they obtained seed (kõtĭlătĭ) or shoots; at first they planted these in the mud, where only small plants grew, then they tried it in the plantings, where large plants grew. The custom of smoking is older, however. Fonseca reports in 1773 that they smoked their clay peace pipe in an easterly direction, apparently observing a ceremony (1).

1. Rev. trim. 8, pp. 378 and 387.

Probably they received merely another plant from the Brazilians.
249 /259/ Today tobacco is raised in the plantings, and it is planted by the men during the rainy season by placing seed kernels into the ground. Harvest begins "when the leaves begin to hang" (in July I already saw fresh tobacco leaves hung up to dry). The leaves are picked and brought into the house, where they are hung up to dry. When they are half-dry they are rubbed between the hands ("so that the tobacco becomes black"), then hung outside the house on a pole or a special sloping rack, and com-
[415] pletely dried. It is stored in the oblong baskets called lãlá, and, to be sure, rolled up pad-shaped by the south horde (ĭlũlãũ), plaited into a braid by the north horde (kõ(ŭ)gã). (See Ill. 194, Šavajé /see p. 323/.)

276 The variety is evidently very light; its fragrance is not very pleasant, but the Indians smoke it passionately. They find
249 the tobacco of the Šavajé to be better and obtain seedlings from
438 them to improve their stock. Thus, on my return journey from
[437] the Šavajé I was accompanied by /Ills. 103-104 appear here/ a
[882]

/277 cont./

501 [502] The boat is pushed over shallow places; to get over exposed sandbanks extending crosswise, wooden rollers are laid down on which the boat is rolled across (Ill. 9).

There are no anchors for securing the boat; stones with plaiting around them serve only as anchors for the bottom tackle for turtles. The boats are easily pulled up on the bank, and the boat pole is stuck into the sand through the loop; this is the whole mooring.

[415] Half-gourds are used to scoop out the water that enters.

[532] [484] [211] I saw decorated boats only in Village No. 20. Here, on the inner wall of a boat, there were light-colored human figures; another boat had 36 notches on the edge, which were said to be the number of nights required for a journey to the Sambioá.

484 Such trips lasting for weeks are usually undertaken in a large company; often the entire village sets out in a great number of boats packed high. By themselves the Indians only make [242] journeys of one or two days. By way of /278/ provisions they take only a little with them: manioc, maize, and the cooking pot; the fish are caught on the way twice a day. Rower and helmsman change places daily on longer journeys, especially if only two men are traveling in the boat.

502 132 Shipwrecks sometimes occur, especially while crossing the river in a storm. Such accidents, in which Indians lost their lives and of which several examples were recounted to me, are easily explainable in view of the high waves which storms create on the river and the narrow, low boats of the Indians. In fact, I myself with my boats (dugouts with one or two side planks set on them) was often forced to seek refuge from wind and waves for hours on high banks or on sandbanks.

The Indians endure bad weather on the journey rather simply. They quickly build themselves small sheltering walls out of poles and prepared palm leaves, which they always carry with them on longer journeys, or they pull the boat on land, turn it upside down, and lie down under it wrapped in their coverings beside a fire which they light in the center. They spend the worst nights of storm and rain in this manner.

/337 cont./

164 757 mucus. The mothers would pound them on the back; no other remedy was known. The coughing was explained as a consequence of the cold nights and the lack of blankets. They do not know any remedy for coughs.

164 I did not observe any tuberculosis. Ehrenreich reports ("Beiträge," p. 32) that the Karajá suffered from it, that they were aware of its danger and greeted every stranger with the question: "ahi catarrho não tem?" Now this custom has disappeared, probably with the decline of the disease.

[759] For chest pains they use ipipokama emetic powder (hãdãõ).

Fevers apparently are rare from May to October. At any rate, I did not see any attacks of fever in the villages. Only one of my Indian rowers was afflicted with a severe fever for three days in August. Fevers are said to be frequent, however, at the end of the rainy period, especially in the swamp region between São José and the Rio das Mortes; this stretch is therefore not 757 permanently occupied by the Indians. As a remedy they use the [824] /338/ plant kŏdūlāzĭ; it is pounded and mixed with hot water, and with this infusion the body, especially arms, shoulders, and chest, is washed. When this has been done four times in one day, the fever is said to be gone.

[164] Smallpox is unfailingly cured (as I was several times assured in answer to my question), and, indeed, the cure takes place on the eleventh day of the illness. It occurs as follows: [824] The four roots, nâuĕkĭedĭzŭ, sĭndăkălăndŏ, klākla, lōlŭŏ, are pounded, mixed with water, and drunk. The drink is followed by profuse sweating. For eleven days this is taken three times a day, noon, afternoon, and evening, and during this time only very small, boiled fish are eaten. On the eleventh day the sickness is gone.

[164] Measles cannot be cured. In 1906/07 a severe measles epidemic must have afflicted the Karajá. Many people are supposed to have died because they bathed in the river during the fever. For this reason bathing is not permitted during any [262] illness now. Grilled piranhas and manioc mush serve as food for the sick; even the parents of the sick eat only these foods during the illness of their children.

/358 cont./

301 Dance belts (wădăkănă̆) of the male youth are not as elaborate as those of the Karajá, but are kept essentially simpler. One specimen is striped black and white lengthwise; on its lower edge, on a separate string, hang two bunches of Thevetia fruits and one to three feather rods, alternately. The other one, coming from Schischá, in addition to the lengthwise stripes, exhibits a cross-striping; on its lower edge, directly alternating, are fastened at each place two pairs of Thevetia fruits and one feather rod (Pl. 59, Ill. 12).

• 262 6. Food. The Šavajé, like the Karajá, live on the fish
136 that they catch and the yield from their plantings. The lake on which they live is extremely rich in fish, in spite of its shallow depth (0.75 to one meter); there were even pirarucús
311 in it. The planting lay far from the village, about six or seven hours away, on the edge of the rainy-season lake. It was growing extremely well and so thickly that one could scarcely follow the path in it. Close beside the new planting there was an older one.
482 Here and there filled back-baskets lay by the wayside, waiting to be picked up.

252 The manioc is pounded in a knee-high mortar (kōŏ) which
[912] has an approximately finger-thick wall, with a pestle (hāāû) of reddish wood 1.6 meters long and 0.10 meters thick, or it is rubbed on a wooden grater (wŏjănăkiă̆), /359/ picked over on the rod-sieve (brēdjĕ̆), and pressed in it. Then this meal is
262 mixed with water and cooked. Such manioc mush (ĩũălŭ) also constitutes the chief food of the Šavajé. In addition, I also saw yellow mush and green vegetables as festive foods.

226 Fishing was done by the young people with bows and arrows. Early in the morning they would already go out on the
[123] lake and soon return with a good yield. I received my share of everything, even of the huge pirarucú which was caught on the second forenoon. The lucky fisherman took out the entrails of the animal and then cut out the sides of the belly, which were distributed by the chief and placed on different piles. Then the rib pieces of three ribs each were chopped out and likewise distributed. Every family received its share. I, too, was given some.

Brazil.

136 They are as tall as a man, and, standing in line, their uniform black heads, white breasts and long, black legs, gave them a decidedly military appearance. The reflection in the water gave the illusion of a double line. I believe this is the largest bird that flies. It must have a long, clear space or it cannot rise. From standing humped up, like a goose on a cold day, it takes a few hesitating steps, then several determined strides, then breaks into a run, followed by a long series of big jumps and flapping of its huge wings, until, finally, it gets clear of the ground.

114 As we were borne along at night where the river was broad and deep and free of obstructions, all slept, or tried to sleep, excepting one or two watchers. My improvised bed in our large canoe was made of a large, square tin can, the side of a big tin wash-basin and the half of a gourd shell. My companions reclined on similar beds.

609 One obscure night, as we moved silently onward, like a giant phantom, we descried a light some distance ahead and heard Karayá shouting to us from a sand island. Fearing that they might not be friendly, and because of the darkness, our first thought was to pass on and not land where they [206] were. But a moment later, we discovered that they were a friendly fishing party: so we went ashore. As we drew [533] near to land, our Karayá pilot, Pedro Monco, sang one of their familiar tribal songs. It was of a joyful strain, though extremely peculiar, suggesting, somewhat, the running and bleating of a deer. tI is usually sung for the purpose of announcing to those on shore that visitors are arriving, that they are friendly, and that they are happy to meet their friends on land. Our trumpets were also sounded, and I played a hymn on the cornet. Our arrival appeared to give the fishing party much pleasure. The first thing they asked for was manioc meal and fish hooks. They were all in nature's dress, except the captain of the band, who wore a blanket.

268 Soon after we disembarked, which was past midnight, a [252] Karayá appeared with what resembled a skinned cat, and placed it over the fire to broil. "What is this?" I inquired.

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

"Monkey."
"What are you going to do with him?"
"Eat him—me like him much."
"How did you catch him?"
"Me shoot him with an arrow."

Continuing our voyage at dawn, we encountered before noon another cluster of Karayá huts on a sand island. Before we could get to shore, the natives ran out into the water to meet us, and surrounding our canoes, eagerly offered us balls of black beeswax and pottery in trade for what they supposed we had. It was amusing to see a Karayá couple trying to make a trade with our only woman voyager for a man's gauze undershirt. I could not but think of how the poor savage would appear with only that shirt on. He wanted it, he motioned, to shield himself from the cold at night, and from the flies by day.

We passed the next night at another group of huts on the sand. These Karayá who were very cordial, were expecting us for the news of our approach had preceded us; so they gave us a royal welcome. The *mayor of the city*—the chief of the local horde—appeared arrayed in a complete suit of civilian's clothes, consisting of white linen trousers and vest, black coat and hat. These he wore merely as decorations, not as a covering, for these people consider themselves fully and properly dressed without any such apparel. It was a remarkable sight indeed to us to descry in the gloaming, as we approached the land, what appeared to be a well-dressed representative of advanced civilization entirely alone in a remote, howling wilderness, surrounded by nude and painted savages. He had obtained these garments somewhere from a trading boat. We were escorted in state to a large hut where were assembled all the human inhabitants of the island; and after the reception, we witnessed the wrestling game of which the Karayá are very fond, which will be described fully in future pages.

The same night, as I was sleeping soundly in the open air in my hammock, which was swung between two stakes

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

mas it was to me! How almost infinitely removed it was from the situations and environments of former Christmas days! I seemed to be a wanderer in a world wholly different from that which I had formerly known. The afternoon of Christmas day, we passed the principal mouth of the Rio das Mortes—a river with an uncanny name because of a sombre history. It takes its name, I believe, from the fact that a party of explorers, while navigating the Araguaya in canoes long ago, were slain here by the savages. It is a great river, though almost unknown to the world, and drains a vast region that is almost wholly unexplored. While passing the outlet of this mysterious river, a storm burst upon us, and our large canoe, becoming unmanageable, was finally driven ashore. Darkness closing in rapidly we prepared and ate our Christmas dinner in the wind and rain at the edge of the forest. We had no expectation that Santa Claus would penetrate the unknown, mysterious wildernesses that enveloped us to fill our stockings; though a few of our party did fear that the tiger might come to us for *his* Christmas dinner. So we all slept under a large tree close around the fire.

The next day, we visited a Karayá cemetery on top of a hill. As we entered the cemetery, I saw one of our Karayá canoe men, who had preceded us, standing over a nice watermelon that had grown there. I wondered why he did not eat it at once as they are fond of this fruit. But he would not touch it, nor would any of the Karayá, because it was a product of the cemetery, and intended, perhaps, as food for those who had gone to the shadow land. Two of our party did eat it, however, one of whom was myself. But I must acknowledge that it tasted unpleasantly like a Karayá smells. Our woman voyager declared that we had eaten the flesh of a defunct Karayá. Broken pottery was lying about in the cemetery together with skulls and other human bones; while sunk into the ground or standing on the surface were large clay urns containing the osseous remains of dead Karayá. Pumpkins also were growing in the cemetery as well as melons.

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

But even
235 these birds are regarded as members of the family, and no
[062] use is made of their flesh, nor even of their eggs. In recent
[137] years, however, the savages have begun to use them as an
231 article of trade with passing canoes. The most important domestic animals possessed by the Karayá besides fowls, are dogs and cats, which are widely distributed. They have no pigs. This animal is raised by the Kaiapó tribe, who obtained it originally from the civilized people, and use it as an article of trade. A veritable menagerie, in which the various bird families figure prominently, may always be seen around the largest Sambîða villages. Many proud, magnificently plumaged, and ever-watchful macaws are always seen clinging to the tops of bare poles near the huts like watchers in their towers, or roosting on the roof of the hut; and if anything strange should approach, be it man or beast, they give warning in deafening screams—especially when civilized men—men wearing clothes—appear. Dogs, also, where they have such, bark fiercely when civilized men appear. This kind of man seems so extraordinary to them. Our dogs, in turn, make a fearful fuss when they see savage men for the first time—not only because of their exceedingly strange appearance, but also because of their odor.

235 Other birds kept by the Karayá in order to get their feathers to make ornaments, are the military bird, small storks, black-headed giant storks, cranes, the glittering white ardea, the beautiful, pink-feathered spoon bill, various wild ducks such as the canoe beak, rheas, or emus, which are the South American ostrich, and wild chickens. Birds that do not become so much attached to the family that they would not fly away, are held captive by having their wings clipped, or a few feathers plucked out. Many of these birds are decorated artificially. Those having white feathers are dyed red, while others have small bunches of bright feathers attached to their wings.

232 Some of the Brazilian Indians have a curious art by which they make nature change the color of the feathers of many of their captive birds. They jerk out the feathers they wish

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

226 [136] which attains a length of ten feet, occurs very frequently; also the electric eel, and the thick-bodied pirarára which is encased in an armor of strong, bony plates; the voracious piránha, the jahú, a scaleless fish nearly as large as a man; the pintado, or spotted fish, which reaches a length of six or seven feet; various pacús, besides many other kinds of fish. All of these are suitable for human consumption. [262] There are certain scaleless fish which are not used by the Karayá. Neither will they eat the dolphin; but they are quite fond of the turtle and its eggs.

During the time of high water when fish are not easily caught in the yellow, earth-charged flood, the Karayá secure their fish from the lagoons along the river, which they make into great, natural traps for the larger fish by cutting off their retreat. This is accomplished by blocking the outlet of the lagoon with a basket-work of poles and heavy climbing vines. [178] [437] In former times, fish were taken exclusively by means of the bow and arrow, but the Karayá now use the hook and line, which is obtained in trade from passing canoes. It is for the most part impossible to fish in the Araguaya with a net because the piránha cut it to pieces, and also because of the many large creatures that infest the river.

224 Hunting is not so important an occupation with the Karayá as fishing, hence they are more expert anglers than hunters; nor do they display much skill in the chase. This may appear strange to persons who believe that all Indians [262] are hunters, par excellence. South America is not so rich in large game as Africa; moreover, some superstition, the taboo, doubtless, prevents the savages from eating the flesh of some species of game which are most numerous. For this reason, the Karayá do not hunt the tapir, which abounds along the Araguaya, though the meat is excellent, being much like beef, yet richer. Deer also, of which there are many varieties, exist in great numbers; yet few, if any, of the savage tribes touch these animals. The Karayá never hunt large game, confining themselves to monkeys, which are abun-

6:Cook M-3,4 (ca. 1900) 1909
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dant, and to the pecari, the aguti, the musk duck which is found in ponds, and similar small game. 224

Agriculture among the Sambiõa is highly developed—remarkably so, in fact, for a people living in a state of savagery—and is even more advanced in some respects than that of the "civilized" Brazilians living near their territory. A large assortment of vegetable foodstuffs are raised. They now have the same agricultural implements as the "civilized" Brazilians, having relegated to oblivion their rude tools of ancient times, with which they could not till the soil but to a very limited extent, and that only with excessive toil. The high agricultural development reached by these savages is very interesting and important, proving conclusively that the primitive man, far from being incapable of anything but to wander over a wide territory, living from hand to mouth by hunting and fishing, is capable of becoming an agriculturist of no mean order. The plant most extensively cultivated by the Sambiõa is the manioc. They raise both kinds, the "wild" and the "tame." Next to this in importance is corn. But this is used more to make a fermented drink than for food. Sugar-cane is also cultivated on the low, alluvial soil along the river, which is well adapted to this purpose. But the natives have no suitable contrivance for extracting the juice from the cane. Several varieties of small, brown beans, brought from Pará, and which are a staple food among civilized Brazilians, are also raised. So also, the white and violet Brazilian *cará*, a kind of potato. Besides these foodstuffs, which were obtained originally from civilized Brazilians, the Karayá gather from forest and jungle, many kinds of wild fruits and vegetables, which introduce a pleasing change in their aliment. A few such are the cajú, a yellow, olive-shaped plum, which grows on a very large tree; the jábádacába, a plum which grows clinging to the trunks of a tree resembling the elm; the morisy, a large yellow cherry, groves of which may be seen growing on the uplands; mongába, the fruit of a kind of upland rubber tree, which I have elsewhere called a natural baked apple; and

241 [178] [273] [262] [177] 272 262

6:Cook M-3,4 (ca. 1900) 1909
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227 228 the genipapa or wine fruit, a very soggy, tough fruit as large as a pear. It looks and tastes something like a fig soaked in vinegar, but is much prized by the natives. But, as elsewhere mentioned, the palm is the never-failing friend of the children of Nature. One or another of its multitudinous varieties will have a little food of some kind for them every day in the year, such as nuts, fruits and vegetables; [824] and besides, will furnish them the material for their huts, and for bows, arrows and cordage. Though all else should fail, these trees will remain as a tree of life to them. It seems strange that they have no oranges. This fruit will flourish in this region, even doing well without any care, once it has been given a good start. The absence of this tree is the more remarkable because the Karayá are very fond of oranges, and undertake journeys lasting weeks to obtain them. Wild honey is also a much prized article of food, as it is among [237] most South American savages. They make the wax into black balls, or discs about one inch thick, to be used as a glue.

276 The Karayá have also a kind of tobacco, which contains but a slight percentage of nicotine. The dried leaves are kept in large, square packages covered with palm-leaves. To prepare it for use, it is pulverized between the hands, then smoked in a pipe that looks like a funnel-shaped plug. The pipe most used is one fashioned by Nature herself. It is a certain kind of fruit-shell, or pod, which is funnel-shaped and hollow. Failing this, a pipe is made of a kind of hard wood. The bowl and stem are one straight piece; therefore, when in use, the cavity is in a horizontal position, and not held upright, like the civilized (?) man's flue. The part that enters the mouth is so large that the lips are greatly distended in closing around it, hereby increasing the already ugly appearance of the mouth caused by the repulsive ornament in the lower lip. I have seen the front teeth hollowed somewhat to fit around this huge plug.

252 No less interesting than the kind of food used by these people, is the means whereby it is prepared for eating. In